

# Update – National Legislation, Ag Working Group & PNDSA

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Presented to Idaho Soil Sequestration  
Advisory Committee 5/15/08

By Dick Wittman

## Precision Ag Contract - *PND*SA

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- ❑ Verified Emission Reductions Agmt (VER) with EcoSecurities (*source, develop and trade ERCs, Dublin, Ireland*)
  - ❑ Project Detail – 7,500 Tons @ \$8.00/T CO<sub>2</sub>e; 25,000 acres using Direct Seed & Precision Ag practices
  - ❑ GHG Offsets come from
    - Reduction of diesel fuel from DS and GPS guidance
    - N<sub>2</sub>O emissions reductions from guidance and VRT technology
    - CO<sub>2</sub> reductions from ↓ pesticides related to GPS, auto boom controls & Green Seeker spray technology
  - ❑ Are we really selling CO<sub>2</sub>e for \$8.00/T?
    - ***No...selling experience in measuring, monitoring & project design for a project initiator/aggregator***
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## Case Scenario

# Methane Digester – Offset Project

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- Problem:
    - 30,000 cows emit @.20-.40T methane/cow = 6-12,000T
    - CO<sub>2</sub>e equivalent = 138-276,000T/yr (*Methane Global warming index = 23x*)
  - Costs – Status Quo:
    - Manure disposal cost reduction \$.28/cwt x 18,500#ave = \$51.80/cow/yr
  - Potential Solution: Install Digesters
    - Total Investment/cow \$800 x 30,000 cows = \$24,000,000
    - Fixed Costs - \$100/cow
    - Variable Operating Costs - \$22/cow
    - Revenue
      - Electricity produced@\$.08x2500 kwh = \$200/cow (st,fed subs,mand=3-4cents)
      - Carbon offset market value @ \$6/T = \$27-55/cow
      - Net Margin: \$105/cow (at conservative values for methane, energy values & aggressive write-off of equipment)
  - ROA Impact
    - “Triple Bottom Line” Impact
      - Economic: 13% (conservative) to 17% (optimistic) ROA
      - Social, environmental ROA – community relations, permit access, etc.
      - Other Issues: California power grid resistance
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## *Renewable Fuels Offset Potential – Mini Case*

Corn-Ethanol System	Emission Reduction	Carbon Offset (Mt)*	Carbon Credit (\$)**
Industry aggregate estimate (Farrell 2006)	13%	76,370	\$1,145,550 \$ .011/gal
Natural gas-fired dry-mill plant w/ drying DG	40%	234,986	\$3,524,790 \$ .023/gal
Natural Gas-fired dry-mill plant w/ wet DG	70%	411,225	\$6,168,375 \$ .062/gal
Closed-loop plant w/ feedlot & an. digestion	80%	469,971	7,049,565 \$ .07/gal

\*Based on a 100 million gallon ethanol plant; fermentation CO<sub>2</sub> not included (neutral)

\*\*Carbon Credits valued at \$15/MT

# Renewable Fuels “offset value”

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- ❑ Carbon offsets generated vary based on manufacturing methods
  - ❑ 100 mil gal plant
    - Generates 13 – 80% Emission Reduction
    - Carbon Credits range from 1.1 to 7 cents per gallon (\$7,000,000 per year on a 100 million gal plant).
  - ❑ ***Doing the math...Industry Wide:***  
*7.5 Bil gal biofuel x 5 cents = \$375 mm per year - U. S. corn industry alone*
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# Other ***HOT*** “offset project” Economic Case Studies needed

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- ☐ Forestry programs
- ☐ CRP
- ☐ Defining “Carbon Neutral” farm strategies
- ☐ Defining a Farm Carbon Footprint
- ☐ ...other innovative project ideas?

...***don't underestimate American ingenuity...discuss AAPEX response.***

See: [Carbon Trading-Wksht for Mktg.doc](#)

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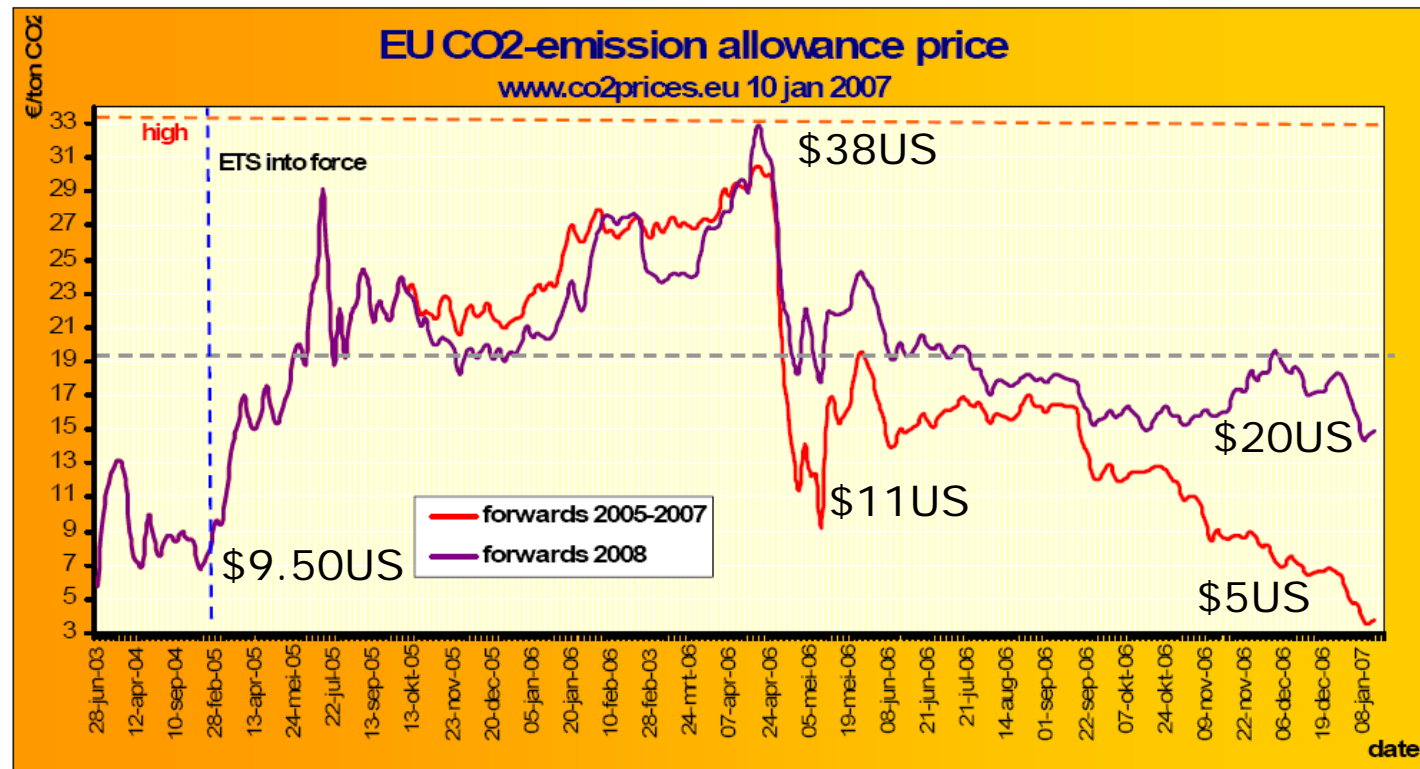


Fig. 2. EU ETS Market Snapshot

Source: Jos Cozijnsen, <http://www.co2prices.eu/>

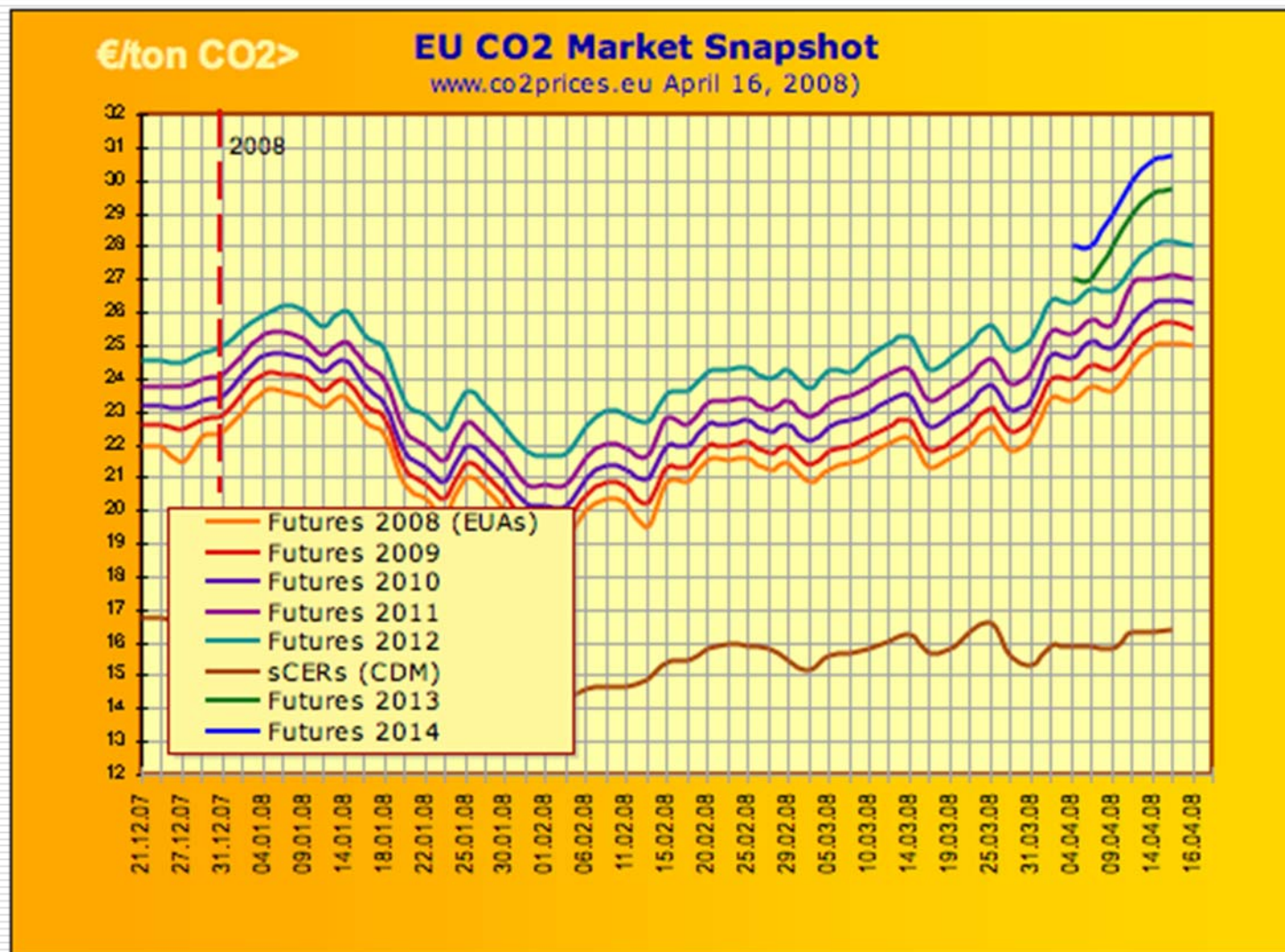
2005-06 Euro vs US dollar  
Currency exchange rates:

→Low: \$1.16

→High: \$1.35



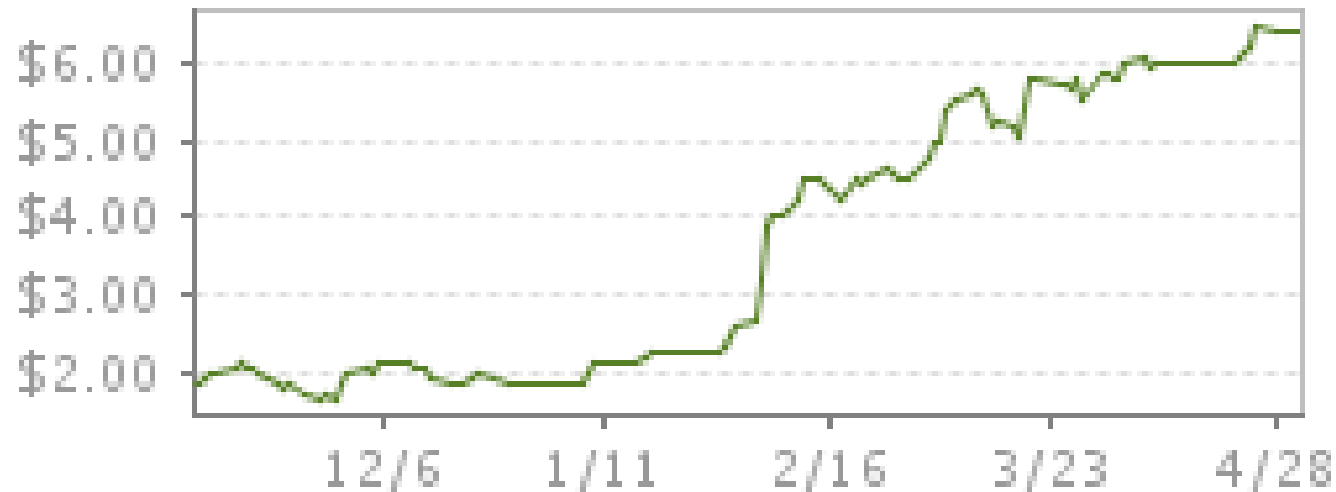
**Price Projection: \$20-23 Eur → @1.54 \$/EUR = \$31-35/MT US**  
(To follow price projections: [www.co2prices.eu](http://www.co2prices.eu))



**Price Trends**  
***Dec 21, 2007–***  
***April 16, 2008***



*Early 2008 trend...*



*To follow CCX prices/MT CO<sub>2</sub>e:*  
[www.chicagoclimateexchange.com](http://www.chicagoclimateexchange.com)

# Current Issues on Hotplate

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- Push on for legislative solution
  - Ag battles to fight
    - Ag offsets vs. “allowances”
    - What constitutes “additionality” (*Wash. Post editorial...NT shouldn't qualify!*)
    - Renewable fuel offsets
      - offset battles between conservation practice & fuel stock
      - Bad press featuring “junk science”... and fears about “food price explosion”
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# *Talking Points – **Additionality Issue for Early Adopters***

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- “avoided emissions”
  - “incremental additionality”
  - Sequestration done “in anticipation” of achieving offset targets
  - Fall Back Position: go to “Allowance Pool” (USDA administered) to get economic credit
    - Discourages “perverse incentives” such as plowing and re-starting clock
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# Legislative Update

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- ❑ 7-8 proposals floated over past 2 yrs
  - ❑ Front runners
    - Lieberman/Warner (S. 2191, America's Climate Security Act of 2007)
    - Bingaman/Specter
  - ❑ Lieberman/Warner getting major vetting at present. For further study of ag offsets:  
[http://clarkgroupllc.com/pdfs/Lieberman-WarnerBill\\_agOffset\\_language%5B1%5D.pdf](http://clarkgroupllc.com/pdfs/Lieberman-WarnerBill_agOffset_language%5B1%5D.pdf)
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# Legislative Environment & Projection

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- ❑ 3 presidential candidates support action
  - ❑ Lieberman/Warner – may hit Senate floor in June
  - ❑ House **Energy & Commerce** will drag feet despite push from Pelosi (Chmn Dingall-MI) ...*also recovering from Wa. Post attack on CCX*; looking at how offsets should work for ag
  - ❑ Senate side more aggressive; wants to increase 15% ag limit to 25% or no limit (20% → 8B mkt.)
  - ❑ Commodity group leaders coming together...harvesting fruits of 3 yrs of education
    - NCGA, NAWG, NFU, Farm Bureau stepping up
    - *“Devil is in details” Ag needs to ID provisions we support and amendments for issues we oppose.*
    - ***Where is your organization plugging in?***
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Working together to develop policies that are good for agriculture,  
the environment and rural America.

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### Agriculture is poised at a period of enormous transformation that could generate new markets and new values that many of us never envisioned.

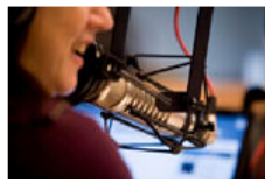
Current estimates of U.S. Greenhouse Gas markets indicate that U.S. farms have the potential to mitigate as much as 40% of our nation's total climate impact with practices such as soil carbon sequestration or methane capture.

What does this mean? It could mean dollars for farmers - and environmental dividends. Under the Lieberman Warner bill now before the Senate, U.S. agricultural producers could tap billions annually in offset markets and allowance income. However, these new markets are not assured. Some oppose development of robust agricultural offset markets.



**Let's work together to make sure we have policies that are good for farmers and for Rural America.**

### Farmers Take it to the Airwaves



Minnesota farmer Kristin Weeks Duncanson and Kansas farmer Justin Knopf, took their message to the radio airwaves to explain how climate policy could generate new markets for agriculture while reducing global warming emissions.

**Click here to learn more by listening to the ad.**

# Time for Questions...

